## Introduction and Beth's Background

Hello, this is Ruiz from Doctor Polycom, and today I'm here for a really informative session with Beth O'Hara. And Beth is a functional naturopath, and she specializes in everything mast cells and mast cell activation syndrome.

And, I'm going to let Beth introduce herself. So, that thank you for joining us. And can you tell us a little bit about yourself and how you got into all this stuff?

I'd be happy. Thank you so much for for having me here. And I find that when we talk about mast cell activation syndrome, for a lot of people who've been struggling, these complex mystery conditions that this can turn on a lot of light bulbs, particularly those people who have been going from doctor to doctor to doctor, or those are the ones that we really want to listen to.

This talk. And so a little about myself. I have a master's in marriage and family therapy and a doctorate in, naturopathy. And I've run a clinic called muscle 360.

The way I got into all of this, and that's an online remote consulting practice. But the way I got into it was actually my own health journey. So when I was young, I really wanted to go to medical school.

And I don't mean like a lot of kids want to be a doctor. I mean, I was so driven, I would, I wanted Gray's Anatomy for my 16th birthday and, and, I lived out in the country, and I would find the, the bleached bones of the cow skeletons, and then I'd want to put them all back together and figure out how their bodies were.

The other skeletons would work and things like that. Yeah. So I was it was pretty geeky kid. And this was so critical for me. And I had my own health issues that started early, and we had moved to this old farmhouse and we didn't know anything.

I'm in my 40s. I mean, nobody back then, in the early 80s knew anything about mold. I didn't know anything about Lyme, right. A lot of times didn't know about these things.

And the, the farmhouse was, of course, full of mold. It was over 100 years old. We were running around playing outside, which was a lot of fun and felt like learning was wild or kind of, you know, childhood.

But, we got bit by ticks all the time. And my, my health just kept going downhill, my from doctor to doctor because I would be discovered head to toe in hives.

No one else in my family was having these issues, but I would be scratching my skin till its legs. And then I had a head injury when I was nine and started having a lot of sleep issues and anxiety, and I, I pushed through.

I made it into undergrad and pre-med and I, became so ill in college and I moved into a duplex that had more mold. You could smell the basement. I didn't know it was a problem.

I thought it was just a nuisance, but I crashed so hard that I barely finished out my bachelor's degree. And I'd had a few scholarship offers to med school, and I had to turn them all down.

It was just devastating. And, I had to figure out what I was going to do with myself. And I share that story because I know it's a lot of people stories where they had these hopes and these dreams, and then this chronic mystery illness comes over them, and nobody can figure it out.

So instead of becoming, I wanted to be a neurologist or maybe go into neurosurgery. So that was, you know, I like to dream big and I instead, I could barely walk across the room.

I could, you know, my, my joints were like walking on ground glass. It was so painful, I could barely hobble to the bathroom. My friends were going out dancing, and I was wearing orthopedic shoes and using the little scooter in the grocery store to be able to pick up my food and I saw dozens and dozens of traditional healthcare.

And then I started an alternative. This was before functional medicine really had come to the area where I lived in, and all the people I tried homeopathy, I tried therapy, I tried shamanic work, and everyone I saw said I was the most complex person I'd ever worked with, and they the the best ones said, I'm so sorry.

I just don't know what to do. And the ones that have too much, fear, probably, or judgment would tell me that I wanted to be sick and I was crazy. It was in my head and I started to believe it at one point, which is why I did therapy.

I was like, well, I'll do anything. I was trying so hard to get well. So to have somebody tell me you want to be sick was also really devastating. But the the big turning point came when I learned about mast cell activation syndrome where, oh my gosh, this ties together all the GI issues that I have.

The brain fog, the extreme insomnia, the panic attacks and the anxiety, the skin symptoms that I had, the sinus issues. At this point, I developed a lot of food intolerances.

I was to about ten foods I could tolerate. And I was barely tolerating those. And then, I lost supplements. I lost my ability to tolerate supplements and medications.

Things were just continuing to snowball, and I realized there is something that ties all this together. These aren't separate issues, but hardly anybody knew about this.

This is before 2016, when Marcel Activation Syndrome got a diagnostic code. No one was specializing in it. Hardly. No one in my area. And this was before telehealth.

So I didn't have access to all these people, but at least had that premed background. And every minute that I could get my brain pulled together, I started studying and researching because at this point I had seen over 50 practitioners.

I stopped counting at 75, but I'd seen over 50. If if I'm nothing else, I'm tenacious, I'm persistent, and that's why I got my life back and I studied everything I could get my hands on.

## Personal Health Journey and Discovery of MCAS

I started setting everything that was written down. Functional medicine was turned command and were textbooks. I was just studying and learning, studying and learning.

How do we peel this back and realizing, oh, there are things underneath that are triggering these mast cells. And Marcel themselves aren't the issue. And I did that.

I got my life back. I went back to graduate school, and I knew there was this connection between what was going on emotionally and spiritually. Not it's in your head, but from what happens, these links between stress states and the immune system and the rest of the body.

So that's why I started with that. Masters in Marriage and Family therapy and then went into naturopathy. And now I can go hiking. I'm doing 45 minutes on the treadmill now.

I don't wear heels very often, but I can if I want to, which is exciting for a woman. And, and I, I don't have every food back I possibly want to eat, but I have a huge variety of foods I can take almost any supplement I need to take.

And, I'm doing quite well. It was a huge turnaround and it feels like a whole different life. So I just wanted to share that part to give people hope.

Because I know what it's like to be in those dark places where you don't know where to turn and you don't know what to do next. That is really an amazing story.

And, thankfully, you were so persistent and, you know, didn't give up because if not, then, you know, you wouldn't have, gotten to the point you have been able to to discover all this knowledge and look beneath the surface.

I think it just goes to show us that you know, a lot of times, we might sort of, lose hope if we can't see a particular problem or if we can have it obviously show up on a test, but clearly there are negative, you know, forms of stimulation out there and, and pathogens and things that we aren't always going to know about, but they cause these uncomfortable symptoms.

So, man, you really had to go through a lot to, to get to the bottom of this. But, I'm so thankful that you did and have been able to, develop your expertise in this area.

And so, now you help people all across the world or all across the country that deal with similar things. Right? That's right. So I, started in person, actually was really under the radar and had a in person practice for quite a while.

And then we went all online a few years ago, which I love, because then we can reach a lot of different people in different areas. And I, we used to work internationally.

We've had to hone in since Covid and shipping issues, and so many custom issues were based in the just solely in the United States right now. But we work with people who are struggling with these complex chronic ministry issues.

They generally have mast cell type symptoms, which we can get into, and I work with them from the very beginning. People who are usually pretty sensitive, like I was struggling to figure out what kind of supplements they can tolerate, working with the foods, figuring out what they can eat.

And my, my goal with them is not just to help people get their health back, but to also get back to living their hopes, living their dreams, getting back to their lives with their families.

But this was really about and people do that. I think one of the cases that comes to mind for me was there was a woman who was having a young woman, very young, having multiple seizures a day, and she was in a wheelchair and she was barely able to form full sentences.

She couldn't write in paragraphs. She was 18. And in this work that we do within, and it's a lot of work, I don't want to make it sound like it's easy.

It's a lot of work. But, within a year, she was back. She was out of that wheelchair, no seizures. She was back to writing full sentences. She was applying to colleges and talking like a normal 18 year old.

Whereas when I had met her, she couldn't even listen to the conversation for 15 minutes. That's how fried and nervous system was. And that's where many of us get to.

And that's linked to those sensitivities. Is this fried nervous system? Yeah, that that makes sense because the nervous system, of course, has an important role in helping us perceive the world and, you know, move our bodies the way that we want to and communicate with the external world.

So, that that's quite fascinating. And so, what are some of the other symptoms that, folks have besides some of the things you mentioned, like brain fog and, very, heightened nervous system insensitivity.

You mentioned something previously about GI issues. Are those pretty common, and are there other symptoms that people get with MCs? It's quite interesting.

This is what has made this condition so mystifying. And it's taking a long time both to get the credit that it deserves and for people to get the recognition.

This is what's going on with their body. Because we have these mast cells, they're really important front line defender and sensing cells of the immune system.

And we have them in nearly every single tissue in the body. There's hardly anywhere we don't have mast cells. Maybe like the retina doesn't have muscle.

So that's one example. But it particularly places where the body meets the outside world. And this helps in understanding the symptoms. So that's why I'm describing this.

First that the skin has a lot of mast cells. The the lining of the nasal passages, the sinuses, the lines of the ears, the whole GI tract from the mouth, esophagus all the way down, trachea, the lungs, around the tissues, around the eyes.

Your mast cells in the bladder. And they rethread there's mast cells in, the genital tissues. There's mass cells in the liver, in the spleen, in the muscles, in the heart.

And one of the things that it's really fascinating and we'll come back to is that there mast cells at every nerve ending. And these mast cells have receptors on the outside.

And that's how they're sensing what's happening. And you think about where they're positioned. The mast cells are really sensing every molecule of air of food, of water.

And they're also sensing with being positioned at the nervous system. They're sensing every thought, every emotion, and they're sensing stress. They're they're quite tuned in, often much more than our awareness is of what's going on.

And their job is to keep us safe. So an example of that would be and these are very old cells evolutionarily we're thinking evolutionarily these have been very primitive but very complex.

And if if we've eaten something that has bacteria in it, it's not good for us. The cells are going to be part of that initial creating nausea, creating vomiting and and causing some of the the other immune cells to come in.

I cut my hand the other day and I was doing something silly. I was using a knife to try to chip apart some things that were frozen. Did I just stab my hand and I didn't get it cleaned out fast enough and started to get red and swollen.

And a lot of people can relate to that and get a splinter. You're gardening, cut your hand or something like that. That initial redness, swelling and some itching.

Sometimes that'll be a mast cell response. And what that's doing is creating mediators to create releasing mediators that create inflammation and to surround that area and protect that area from the bacteria and other organisms that might be invading.

And then they'll release what are called cytokines for immune cell messengers. And that's become a household word. Now, mast cells are at the core of that and call more of the immune response.

And they're also involved in wound healing. They have roles in pregnancy, all kinds of roles in the body. So if you think about this, mast cells have over 200 receptor types.

They have receptor types for other cell signaling molecules like cytokine. And they have receptor types for bacteria, viruses, molds, Candida. They have receptor types for stress for hormones or estrogen receptors on them, and progesterone receptors.

They have receptors and medications dock on and trigger. So we've got over 200 receptors. Then we have over a thousand mediators within these mast cells.

That's been documented. Histamines the best well known and describe most people have heard of histamine and antihistamines. We've got cytokines and we also have prostaglandins.

We have interleukins. There are so many types of mediators that can be released, even some neurotransmitters. So these mast cells will release new transmitters that communicate to the nervous system.

And then they have receptors for neurotransmitters and they receive signals from there. So you get this feedback loop with the nervous systems constant communication.

When you think about that I think about all the locations 200 receptors, over 1000 mediators, the number of permutations of possible what's happening in the body is extraordinary.

And that's why the symptoms can look so varied. So I describe this because a lot of people have been told if you don't have itching and you don't have hives or rashes, you can't have mass activation syndrome.

And that's some outdated thinking that just needs to be updated. It's not entirely true. It's not. Everybody has skin symptoms, and not all mast cells are going to be involved.

And every person now, some people do and they may have really severe symptoms. That's not as common. What we have is symptoms in two or more systems. So we may have those G. I type symptoms.

## Understanding Mast Cell Symptoms and Triggers

So I'm going to talk about systems. So if we think about the GI system then somebody may have any combination of heartburn. They may have esophageal swelling when they go to eat food and they get some throat closing.

They may have stomach burning. They may have diarrhea or constipation, inflammation in the GI tract. And those types of symptoms. If somebody has involvement in the cardiovascular system talking about arteries and veins, they may end up.

And this is more complex and this kind of simplifying it. But one of the things that's common is low blood pressure can also be high blood pressure depending on which mediators are being released.

And then you have this nervous system involvement that's so close with that we can't separate that out. So if you get nervous system cardiovascular involvement, you can have things like thoughts, things like this autonomia, you can have heart palpitations.

And that's one that bothers people a lot, or just heart palpitations, or they just feel like their heart is racing. They can't keep they can't calm it down.

That's fairly common in the nervous system. We can have all kinds of symptoms so we can have strange nerve sensations. We can have depression, anxiety, brain fog, sleep disturbances.

People have trouble falling asleep. They have trouble staying asleep. Any combination of those things we can have, the skin symptoms, things that are involved can be itching, hives, things like psoriasis, eczema are related.

Flushing ruddy cheeks are common. So I never wear blush because I don't need to. My cheeks are always kind of ready or people may have a pale complexion and a common thing if people have the skin involved.

Mental called derma to graphic, which is where you could write your name in your skin and it would stay really pale, really white or really red for quite some time.

If you scratch then you're going to have lines for quite some time. There are also links with hypermobility and EDS. If there's connective tissue involvement, then we've got the sinuses.

There's common field of sinus involvement. Our post nasal drip, and they'll be throat clearing kind of things. My husband used to always think just trying to get his attention like, no, it's just a fossa.

Thank you. That's. An IT people can have muscle pain. They can have bone pain. This is why it looks can look so different. So I may have one case that's entirely for GI food intolerances, sleep issues, anxiety and then somebody else.

Those aren't the issues, but they're having fed people where their skin was peeling off and sheets just a horrible condition. Or they've got the hives, the psoriasis, these kind of presentations and really significant menstrual issues that can be reproductive symptoms that are involved.

The real question is what's driving this mast cell over activation, which is what it is. The mast cells are getting overly sensitive and they're over releasing these mediators.

And mast cell activation syndrome. And, that's the way through is to look at what what's underneath. Why why is this happening? And address that part.

So, I can't help but think that, you know, the with such a wide variety of things that could show up of symptoms or problems that somebody could present with, you know, how how would we know that they're dealing with mast cell activation syndrome?

Is there any sort of test that could be run, or is it something that we just kind of you might almost right off the bat, know that somebody is dealing with that just based on the the wide variety of things going on.

Is there any way to know for sure that that's what it is? It's challenging. It's a good question. So one, it has to be multi systemic right. If somebody just has pollen allergies that's not mast.

Mast cells are involved. There's something mast cell activation syndrome. It's two or more systems in an inflammatory involvement in two or more systems.

And then there is testing. The testing is quite limited at this point in time. And it's challenging to get good testing. So one, we only have testing for about about ten of the mediators out of a thousand.

That's not good percentage. And if somebody doesn't have involvement in those mediators okay. Now what the other thing is that these samples have to be cured.

They have to be kept chilled through the entire process, from the immediate drawing all the way through, including the processing. And not a lot of labs have the ability to do things like cold centrifuge there so that that's challenging.

And these mediators can be up and down the blood stream. So some practitioners who really rely on testing to get a diagnosis. Now I don't do diagnosis diagnostics, but for people that do see patients in person and they're doing the diagnostics, some will have their their patients trigger a flare, eat things.

And and we're going to make them inflamed or expose themselves to things like paint smells or gasoline smells or mold. It's going to make them inflamed and then have them come in and get the testing every hour on the hour to hopefully get that so that that's part of this, diagnostic process.

It's an evolution. Yeah. There's two kind of camps in terms of this testing that's still going through these debates. One says the taste should be elevated in mass activation syndrome, and the other says the taste is rarely elevated.

I don't see it elevated in the people that I've worked with. Trip taste gets used to rule out things like narcissi, ptosis, and some other genetic conditions involving their cells.

Then there's a third part of the current criteria, which again, all in evolution. The third part is that there should be some improvement with a mast cell mediator, or sorry, muscle stabilizing medication or antihistamine.

One of the challenges there is that except for Cromwell and sodium, these medications as they're formulated, has mast cell triggers in them as inactive ingredients.

Things like titanium dioxide dyes, corn starch, talc, and, then you don't know unless somebody is getting everything purely compounded if that's going to be affecting them.

And people can have such significant nervous system dysregulation, their nervous system and mass axis, which is how I think of it, is just going to fire it.

Everything doesn't matter what it is. So sometimes you've got to calm the nervous system down to even tough. So all this to say, it's challenging. How do we make this simple for people?

I'm coming back to if there's inflammation in two or more systems in the body, and they have inflammatory underlying key triggers. And some of the biggest that I see, number one biggest is mold toxicity.

And the number two is Lyme and other tick borne infections. It's almost impossible to have those. And I'll have some mass involvement. It can happen. But once people really spiral down to significant inflammation, there's going to be some mass involvement somewhere.

And the way that I approach it is the same, regardless of whether somebody can get that official diagnostic criteria or not, we're going to calm down their nervous system, calm down their mast cells, and then support them in addressing those those underlying triggers.

So this is something where it seems like a therapy, like PMF therapy could be very helpful because one of the basic mechanisms, basic actions of PMF therapy is to reduce inflammation.

And so, and it works at the cellular level because you have the charge inside of magnetic fields, which is able to travel through the body no matter where it is.

You know, nothing stops a magnetic field, with the exception of metal, which magnetic fields will go around. And so, you know, as somebody who specializes in acupuncture, if somebody with these really mysterious symptoms came in, it would be really difficult to try and figure out where to start, you know, is it in, you know, do you want to focus on the cardiovascular system or do you want to focus on the sleep or the gut health microbiome?

There's so many different moving pieces, but being able to have a therapy like PMF therapy, we can essentially treat the whole body, or we can treat the areas of the body that are in more in distress and have the ability to reduce inflammation.

That's there. Healthy cells typically ignore the magnetic field. So it really is going to be going to work where it needs to. And a lot of times in my world, I actually visibly see this because when you have strong magnetic field therapy systems, you can see areas of the body respond or the patient can feel it in particular areas.

So for instance, if I have a big pad over somebody's chest, they might only be aware of the sensation in a very particular precise spot there. And that's a clue that there's more inflammation present.

And so being able to have a tool that lets us kind of work on everything simultaneously, I think is really valuable for situations like this where there's just so much going on, almost can be tricky.

Where to start? And then of course, all the nerve cells, the neurons, the entire nervous system will respond, initially first to magnetic field therapy, because that is part of our external, connection to the world.

You start to get nervous, system relaxing and stress reduction. I can only imagine that the people you deal with are

going through lots and lots of stress, and that's got to be a big part of the whole picture.

Yeah, I I'd love to talk more about the nervous system involvement and then loop this back in to some very practical tips around PMF for this population.

And when, when people are dealing with this type of it very complex, intense chronic illness, the nervous system gets significantly dysregulated. Some of the major dis regulators of the nervous system are going to be chronic stressors, early childhood traumas, which are quite common in this population.

About 60% of my practice people have had early childhood traumas. This can be abuse, can be a direct any kind of physical, mental, emotional. A lot of people don't even realize that some of the experiences they had were early mental abuse or emotional abuse, particularly manipulation, can be really hard to pick up on physical or sexual abuse.

That's clear. Mental emotional abuse is is more insidious in some ways. There's, a lot of that or can be having witnessed abuse as a child and having watched a parent be abused or, having been at a friend's house and watch this going on, that triggers a danger in our systems.

It can also be having had a surgery that wasn't understood, but even surgery as an adult can be a form of trauma, car accidents or forms of trauma, lots of forms of trauma.

We are actually a very traumatized population. We don't talk about it. And especially in the last few years, oh my gosh, we're living in a global state of PTSD, and I do stress ratings and stress scales and everybody that comes in and I watch them jettison the levels up.

In the first two years of this pandemic and distill all the stress everyone is under.

## Testing Challenges and Diagnostic Criteria

So that kind of even this, the chronic stressors where we we live, crazy lifestyles that are not conducive to health, especially when we look at in comparison to a traditional population.

So a traditional culture that there they're really in touch with the land, they're in, these natural rhythms. Their main focus every day is to, get, you know, gather food, preserve food, just take care of the well-being day to day.

And they're not paying bills. They're not worried about getting the kids to this soccer game and that basketball game and this all in the same day. No, no, you're not dealing with these things.

Our lives are kind of crazy in comparison. And so so we have those disruptors. Mold toxins are another huge disruptor of both the nervous system and the immune system.

And mold toxins are an epidemic level. Now there's a number of reasons for that. And, but even in the past 20 years, mold toxicity has skyrocketed because of what's happening both in climate change and the amount of types of flooding, the humidity levels in people's homes, building code changes, and the emfs and the Wi-Fi that we have more devices in our homes.

We have smart homes now, and that increases mold growth in people's homes. It's being documented and observed. Well, that's fascinating. And it's a direct dis regulator of the nervous system.

It keeps the nervous system in fight or flight and disrupts the vagus nerve, signaling the limbic signaling. And then these tickborne infections have a huge impact on the nervous system as well.

And they've become quite common, I think, because our bodies are weakened from all of the intergenerational toxins that we're consuming, and then passing on to the next generation.

So they found even in cord blood, for, infants that are being born there, they're finding high levels of toxins in that cord blood. So we're not starting at the same, same, you know, ladder rung that we were starting at 100 years ago.

And now it's stacked against us. And either is in the generations are getting sicker. And we're really observing that. And so there's a big role in this nervous system dysregulation and muscle activation.

And in my practice I think of people being in three categories. I have people who, I in my head call and type one type two, type three. So type one is super sensitive.

There are people like I, you know, like I was they down to their damn trouble tolerant foods. They can't tolerate supplements. Everything that should be helping them.

They can't get on board. Then I have the type two. I think about the sensitive complex. So they're kind of sensitive. They're sensitive to some supplements to some foods, but it's easier to get some things on board if we go in the right order of operations.

And that's a real key in all these cases. I'm marking it. And then type three would be kind of easy complex. They're complex, but they're going to tolerate pretty much anything I give them.

I recommend to them. They can do blends of supplements and things like that. I don't get a lot of those cases, but I get some of those, with all three of these, I start people with nervous system rebooting again because and the reason I described this is that those nerve, those, those muscles being in every nerve ending, what's happening is complex illnesses is we're in this constant state, of survival and danger.

And there's a few models that describe this really well. One's called cell danger response. And one and that was described by Doctor Robert Navia and one by, Doctor Isaac Elias called Survival Paradox.

And they're both really nice models of looking at this from various angles that when we are nervous system is in this state of fight or flight and danger mode.

The mast cells, which are at the interface between the nervous system and the rest of the body, going to be pumping out these inflammatory molecules to try to protect us.

And they're doing their job, but it's really uncomfortable. It's real, and it can be really painful and excruciating to have that. So one of the first inroads to healing get out of the danger.

So if somebody is in a toxic relationship, abusive relationship that has to end for people to heal, you can't heal. And that if you're if you're constantly attacked or bombarded emotionally, mentally, physically, sexually, whatever's happening and then get out of toxins, get out of mold, toxins, chemical toxins, those kinds of things so that this alarm bell can get turned off because it's like the alarm bells are ringing nonstop. Yeah.

But sometimes for people, even when they get out, it's like the nervous system got stuck. The on switch got stuck on, and it's going to take work to shift and even convince the nervous system that you're really out of the danger.

So this is where all three of those types can benefit the people that are that super sensitive type one or that type to sensitive complex. They're going to need more help.

They're to tie this in the PMF, people are in that super sensitive group. They may see PMF initially as a threat. And I want people, if they've not had a good experience with it, to not write it off entirely, that in those people, PMF initially may create more inflammation.

And we've seen that. And it's because, again, the nervous system is. So it's like a porcupine with all the quills out, you know, and you've got to soothe those quills down.

So you may have to enter into some gentle areas, but a great application, instead of putting somebody on a full

body that could be doing the probe at the vagus nerve at the top of the neck and just releasing some of that area, and I think of it as very short and very slow, very low frequency.

So instead of kind of coming in with everything coming in very softly, like a seven.

## Nervous System Dysregulation and Root Causes

And part of it to is that the nervous system, when it gets stuck, if you try to shift it, it it's comfortable with being uncomfortable. It feels safer to be in this high alarm state, because the nervous system doesn't know that it's safe.

And some people may still be in mold exposure. So they may not be able to turn off the alarm system until they get out. And that can be a factor in whether people tolerate this or not.

But if you just touch it with a feather, just trying to shift it with a feather, then it will start to unwind. And then in the more sensitive, complex people, they may want to do a little bit more.

The vagus nerve. Still a great place to start is that vagus nerve support area, gone to calm the nervous system and the immune system, the mast cells.

So step one and two, in my process is stabilization. Getting the mast cells calm down, getting out of environmental toxins and getting the nervous system calmed down before we ever enter into detoxing.

So I think about that as like a detox prep. We got to get the body ready to release some toxins and then the people that are in that more easy, complex, they're tolerating a lot of supplements.

They can take blends. Those things don't phase them. They might have some histamine intolerance. They're going to watch that, but they're not down to five foods they can eat a lot of variety of foods.

Those are the people that do really well, starting with the pads that you use and the pads that can be, you know, a larger area around the vagus nerve.

And still, starting with the nervous system and, and winding. And then as they get stronger, they can move into that full body kind of mad, and they can do some of the stronger frequencies.

And the real key is just to watch and make sure that you when, when I've talked with Doctor Pollack about this and we've had some really great conversations, we may get some initial mast cell activation that's stimulating the healing process.

So we want to dial those mast cells down and then go into use. And modalities like PM, PMF. So that's what I'll recommend it in my practice after we come from up here.

Porcupine quills sticking out to we've settled them down a little bit. The body is more relaxed, it's more receptive. And then it can be a wonderful modality.

Right on, right on. Yeah. That, that sort of we call it a low and slow approach. So, you know, we would essentially start somebody off at a low level of stimulation to see how they respond because of the wide varying amounts of sensitivities that you run into.

We want to ease people into treatment. So with, using PMF therapy with patients going through this, I think absolutely, we want to gradually get them accustomed to this stimulation and let their bodies respond.

What you're saying reminds me a lot of folks that have things like chronic pain and fibromyalgia and where something even just like touching a piece of clothing, as they put it on, could really cause a lot of sensitive reaction because nerves are all flared up.

But then providing stimulation and energy for those nerves to then relax and calm down. Then we gradually see improvement, and then the person can function better and then more so with the, with the the mast cell activation syndrome.

When you determine that somebody is going through this, how do you start to address it? You know, you, have talked about how when you start with the gradual, progression, but then as you get deeper into treatment, are there other things that you introduce?

Yeah, definitely. So first I people come in, we're starting with looking at do they have mold toxins. That's number one. And it's amazing how many people have mold toxins.

So about 99% of people I work with I'm not saying everyone mast activation syndrome has mold toxins, but I can tell you the ones that come to me have mold toxins, whether they know it or not.

So we'll we'll see it. And sometimes we'll even see quite low levels initially on the testing, because the body is a port to toxic fire, and they're struggling to get those fat soluble toxins out of the tissues into the urine.

So you may even see very low levels initially. Some people write it off because of that. And that's why I mentioned that. So we start taking a look at what's happening in the body, what's triggering them.

And then I start people with very specific vagal and limbic system rebooting techniques, things that help the body shift from this state of kind of we're all in this kind of state of anxiety unless you find somebody who's really working on it into this deep state of safety and calm and peace in the body and in a way that most people have never experienced, it's like if you've had the best day at the beach, the weather's beautiful.

It's perfect if you like the beach and being covered in sand, and you just have that subtleness in the body and you hear the waves and everything just perfect.

That's the sensation we're looking for. And I find when people come in, they say it's hard to relate to that, but they can create that, they can find their way to it and some very specific vagal releasing things.

And then other work that you do with acupuncture sure does a lot with the vagus nerve, but anything to shift into the parasympathetic. We have to remember we can't simultaneously be in the stress, fight or flight sympathetic state and the parasympathetic healing state at the same time.

So here's some of the sympathetic fight or flight is what 99% of us are in all the time. And that's not the healing mode. And if we have if we're going to heal, gonna shift into that healing state, then we bring onboard some specific agents to help support the mast cells.

And these can be in that super sensitive population. I'll often start with homeopathy. And sometimes people will start with something really simple like baking soda.

Bicarbonate will actually modulate the mast cell response, not from the pH sense, but the the bicarbonate will. We're not trying to analyze the system necessarily, but it's about by carbonates modulate something called inflammasome production that will calm mast cell activation.

So we can start with some of the simplest things and enter in that way. Perilla seed extract is really gentle. A lot of people do well with that. And then for the people that are in those other two categories, they might be able to do some things like Dao diamine oxidase.

It helps break down histamine in the gut. They can do things like bagel and Chinese skullcap extract. So my favorites it's also mast cell calming and it has a great modulation effect on the nervous system.

Calms the nervous system, will work on sleep and digestion. People have constipation. We've got to get that sorted out for them, which all of this has to get customized person to person in this, in this kind of group.

And then we move into addressing what is underlying this. But just like you describe low and slow. So we'll move into with the mold toxins onboarding these binders really slowly.

Even these other agents. And that super sensitive population is a tip for people. They can actually work and work quite well. So take sprinkles of something.

When I say sprinkles, I mean like granules of sand. A lot of people I say sprinkles and they're like, oh, is like an eighth of the capsule. Like, no, no granules of sand kind of size in about eight ounces of water.

Stir it and just take a sip of the water. This is what you're doing is having a dance with the limbic system to go see that didn't kill us. We're okay.

Yeah. That's safe now. Can we try two sips? You know, the next day. And sometimes I have to enter that slowly. But then if people are in that easy category, then I can tell we're going to start these six supplements.

When I see you next, we're going to move into detox. And and it just depends on where where they are. And we move them through. This order of operations is so critical and these complex conditions.

And that's where a lot of protocols, the vast majority of them are fantastic, but they're not. You have to be customized for this population. They're not what's going to work.

And again, I mention that because some people have tried 50 things, they've watched all these sub summits. The people I work with are usually quite well educated and self-educated.

These areas, they listen to all the podcasts and then they go, oh well, nad should fix my energy. Let me go try Nadia or I should be trying Bluetooth.

I own the Sibo protocol. I can't tolerate anything or I tried all detox. It all backfired and again, it's because we're not going along this correct order of operations for when people have gone into this kind of cell danger response or survival paradox situation.

So, I think it's really interesting how you've emphasized the importance of the nervous system and, achieving a little bit of balance in the nervous system and allowing it to not be so sensitive.

## Treatment Approach and PMF Therapy

You know, of course. Yeah. You cannot be in sympathetic and parasympathetic at the same time. And so, being able to help people gradually get into parasympathetic then of course, has so many good benefits to it.

And, with the PMF therapy, we I've seen many instances of, of folks that have come into our clinic that have been either in so much pain that they could never they couldn't really communicate properly or, even like with things like anxiety so anxious that they're unable to speak.

And in those situations, when I've offered to do PMF therapy with them, you can actually see that shift happening. And now they're much more relaxed, and able to speak, able to communicate, have less discomfort.

You know, the, you talked about doing vagus nerve stimulation on the neck or, you know, the ears are a common place that we go to for that. And, you know, it's it's kind of like patients that have the chronic pain syndromes where, you know, the source of the pain may no longer really be there, but the patient's still dealing with it.

And so then we have to think about treating the brain. And, you know, this sort of constant communication telling the brain that, yes, there's danger when there really isn't.

And so even though the source of, of the pain or the distress is no longer there, the patient is still feeling like it is. So that's one of the reasons I really, really love being able to do PMS therapy with people, because it achieves

relatively simply a lot of these goals that we're wanting to to have a shift in the nervous system, tone, a reduction of inflammation, a increase in blood circulation, which allows nutrients to, you know, go where they need to go.

And especially if there's a place in the body where there's tissue damage or there's sensitivity. And one other interesting thing that, I think of with this is the whole notion of detox.

And, we know that PMF therapy can be helpful with that because it actually helps to open up channels in the cell membrane. So you kind of have this, restoration of being able to push toxins out of the cells and simultaneously pull nutrition in better.

So you're, you know, improving that permeability that we need to regulate. And so, it's it's a lovely way to be able to effect at the cellular level, without doing anything too invasive.

And of course, many times when people do PMS therapy, they are relaxing or they're, doing it in a place that, you know, where it might be quiet and, they get some of that meditation time or that ability to just be away from stimulation other than the PMS.

And so, you know, you you said it best. You know, we are bombarded by stimulation everywhere we go. You know, our our expectations for ourself are so high.

You know, we're not necessarily following a lot of the guidelines we know that help encourage good health. Like, you know, being out in the soil and tending to our gardens.

Even with community tending to each other, we're often kind of feeling like we're in this alone. And so how could you not how how could you, not help but get agitated and things build and so something's got to give.

And, and we're going to see when this happens. People are going to have unpleasant symptoms. Lastly, you know, in our modern world, you know, we have so many toxins that are here now, chemical toxins, you know, I mean, with the pandemic, you know, that we've all endured, there's the stress of it, but then there's so many more chemicals that we're spraying around to try and disinfect things and such.

Do you think that, just modern day life and using more technology, you kind of touched on it with EMF? But even with, you know, chemicals and and paints and such, are we exposing ourselves to a lot of things that we shouldn't be?

We are. We're kind of in trouble in a in a big way. Just human beings in general. The the amount of toxins, the amount of stress, the amount of toxins that are being released that combined with other toxins that have never even been studied, we don't even know what molecules are being produced.

We are bit in trouble. And that's what's happening with those of us that have these conditions, like mast cell activation syndrome, where we're sensitive to things, where we're having all this inflammation, where we're wondering, why me?

Why am I the one that's so sick? And everybody is not it's not such that, well, why am I sick? And no one's not and no one else is. And it's a matter of how quickly are we responding?

And so these are making us all sick. Just some people have the type of systems that it's not going to catch up for them for 20 years. And then they're going to have cardiovascular disease, cancers, those types of things.

And then those of us who have mast cell activation syndrome, where the canaries in the coal mine, we're the ones that are waving the flag and if people aren't familiar with that metaphor the miners used to send back before we have air testing and these kinds of things, you know, 1800s, the mines would produce things like carbon monoxide that you couldn't smell, you can detect.

But if a miner was down there for a few hours, they would die. And so they would send canaries down because

their systems were so sensitive that they would pass out very quickly.

And sometimes they would they would pass. And if they brought it up in the canary had passed out, then they knew that that mine wasn't safe. That's what's happening.

And mass activation has been around for a very long time, but it's been exponentially increasing the frequency. And the studies are showing that this is occurring between 9 and 17% of the general population.

So one of the most under-recognized conditions out there at all. And so you're talking about at least 1 in 10 people in the general population. And then people have chronic inflammatory issues.

The lowest estimate is about 50%. It's probably extremely much, much, much higher. It's got to be more. And so that that's what's going on is that we're we're waving the, the flag, going, hey, this this isn't working.

So recovering from it means we've got to change our lifestyle means we have to change both our toxin exposures. We have to change how we eat. I don't eat fast food.

I, I I'll probably never eat fast food again. And I don't need to. I don't want to anymore. You know, I don't need pizza. I want to nourish my body. But it's just this change in thinking I changed my my cleaning products.

I have good air filtration, good air purifiers. I changed my all my topical products so that they're all nontoxic. I have zero fragrances in my house.

There are no fragrance candles or no fragrance plug ins. And that's what's healthier. And I hope that we can shift this dialog to from why me? To I'm going to be a good model for what's healing and healthy in the world.

And I think that's what Massage Activation Syndrome is teaching us, is that we've got to change these things, and PMS can be a great modality. I wanted to share a quick story.

My experience with is I have had severe cervical instability in my upper neck, and it's better now. I've been getting treatments with things like, PRP and that's helping to stabilize.

But I remember one time I was at a conference and my neck was just out and really painful. A chiropractor was there, really good upper cervical chiropractors.

She wasn't able to adjust. It just would respond. So we use the PMS probe in that area, and it took my pain down from about a level eight down to about a five within about 15 minutes.

Wonderful. And then she was able to adjust me afterwards and I just went right in. So that's an example of how and at that point in time, I was still fairly sensitive.

So that's an example of how even for really sensitive people that just like short targeted kind of treatment can be really effective and then people can build into some of these, stronger ways of, of applying it.

Yeah, absolutely. It's, we can deliver it very gently and it's very synergistic. It's very supportive to the body. It encourages the tissues to perform, more robustly and, with more health.

And so, it sounds like you've experienced a little bit of that already. And, do you recommend PMS therapy to your patients as well? I do, in the right order of operation. So.

Right. Yeah. And, and, and depending on if they have access to somebody like you who really understands how and when to apply it and what types of frequencies, and then, yeah, it's a great, great modality.

It can be hard to find people like you. So your patients are really lucky. Well, fortunately the awareness is increasing. And, you know, a lot of that is thanks to Doctor Pollock for a lot of his, work and the science of how all

this stuff, is beneficial.

## Modern Toxins, Recovery, and Resources

And, yeah, we're I think people now more than ever are interested in solutions that are drug free and that help them to be more resilient and not just, you know, cover things up.

And, so PMF therapy definitely prevents us a great value proposition with that. When I first got started with it, and learn more about it and started to use it myself after I started to see improvements in my own health, I just started using it on pretty much a daily basis.

You know, not only does it help with, issues that I'm not aware of, or I may not, may not be on my radar, but, you know, it's like a opportunity for me to to rest and de-stress, get my nervous system relaxed, and, possibly prevent other problems from occurring.

And, you know, with all these chemicals and the mold toxicity you've talked about, I've certainly dealt with mold, and I've felt the effects of that. So having something that helps us with these more insidious problems is, is needed now more than ever.

So that covers a lot of great territory for us. Do you have any other things that you'd like to add to the conversation about this? Before we wrap up, I just love to share some free resources for people that think they may have mast cell activation syndrome, where they're not sure, or they're thinking about their family member, a good friend or child.

I took the research data on the symptoms that were associated clearly with mass activation syndrome. There are lots of others that are associated but haven't been shown in the research literature yet.

So I just took that and I made a symptom survey that people can, do on their own on the website. It's completely free. They can just go to mast cell three 6.com.

And if they go under MCs, we'll see a symptom survey and they can start to see. Does it seem like it's might be part of what's driving these complex chronic issues that needs to be addressed as part of the mystery that hasn't been uncovered?

And if it is, we've got tons of free resources on our blog. I have courses that help step people through how to do this nervous system part on board some of the mass self-supporting supplements, and start on a mobile detox in a way that's really gentle for people who are struggling.

And then we have a great Facebook community and free Facebook lives most Mondays, so people are welcome to join us. There. So that's nest cell three 60.com amnesty is and Tom CDL 360.

Yep. Mast cell 366. Com and thank you so much for all the work that you do. I mean, this is clearly you've, you're in an area that we need more people, bringing awareness to this.

And so thank you for your expertise and for those resources that you offer to people. And, we hope you continue the great work with educating and empowering.

And thank you so, so much for your time. I know you're really busy, with all the work that you do, but it's really appreciated to help get this message out.

Thank you so much, Roseanne. I just want to tell you, I really appreciate you helping us get this out there and also very grateful for the work that you do and how you support people's healing as well.

And great way to be able to combine different forces and help people get better. Thank you so, so much. I hope you have a wonderful rest of the day and we'll be talking to you soon.

Thanks. Take care.